

## Title (en)

METALLATED BENZYSILANES AND THEIR USE AS POLYMERIZATION INITIATORS

## Title (de)

METALLIERTE BENZYSILANE UND IHRE VERWENDUNG ALS POLYMERISIERUNGSINITIATOREN

## Title (fr)

BENZYL SILANES METALLES ET LEUR UTILISATION COMME INITIATEURS DE POLYMÉRISATION

## Publication

**EP 3363804 A1 20180822 (EN)**

## Application

**EP 17156857 A 20170220**

## Priority

EP 17156857 A 20170220

## Abstract (en)

The invention relates to novel compounds useful as polymerization initiators or precursors for polymerization initiators. The invention further relates to a method of making the polymerization initiators and resulting polymers. The invention also relates to polymer compositions comprising the polymer of the invention and further components such as extender oils, fillers, vulcanizing agents etc., and to corresponding vulcanized polymer compositions and articles comprising vulcanized parts made from the vulcanized polymer composition.

## IPC 8 full level

**C07F 7/10** (2006.01); **B60C 1/00** (2006.01); **C08C 19/25** (2006.01); **C08C 19/44** (2006.01); **C08F 4/42** (2006.01); **C08L 15/00** (2006.01)

## CPC (source: EP)

**B60C 1/00** (2013.01); **B60C 1/0016** (2013.01); **C07F 7/10** (2013.01); **C08C 19/25** (2013.01); **C08C 19/44** (2013.01); **C08F 236/10** (2013.01); **C08K 3/04** (2013.01); **C08K 3/36** (2013.01)

## Citation (applicant)

- WO 2012091753 A1 20120705 - BRIDGESTONE CORP [JP], et al
- WO 2009148932 A1 20091210 - DOW GLOBAL TECHNOLOGIES INC [US], et al
- WO 2007047943 A2 20070426 - DOW GLOBAL TECHNOLOGIES INC [US], et al
- US 6229036 B1 20010508 - BATZ-SOHN CHRISTOPH [DE], et al
- US 2013131263 A1 20130523 - NEBHANI LEENA [US], et al
- WO 2015010710 A1 20150129 - STYRON EUROPE GMBH [CH]
- US 2005159513 A1 20050721 - HENNING STEVEN K [US], et al
- US 6693160 B1 20040217 - HALASA ADEL FARHAN [US], et al
- US 6627715 B2 20030930 - HALASA ADEL FARHAN [US], et al
- US 6489415 B2 20021203 - HSU WEN-LIANG [US], et al
- US 6103842 A 20000815 - HALASA ADEL FARHAN [US], et al
- US 5753579 A 19980519 - JALICS GEORGE [US], et al
- US 5086136 A 19920204 - TAKASHIMA AKIO [JP], et al
- US 3629213 A 19711221 - ONISHI AKIRA, et al
- US 6310152 B1 20011030 - CASTNER KENNETH FLOYD [US]
- US 5834573 A 19981110 - CASTNER KENNETH FLOYD [US]
- US 5753761 A 19980519 - SANDSTROM PAUL HARRY [US], et al
- US 5448002 A 19950905 - CASTNER KENNETH F [US]
- US 5089574 A 19920218 - CASTNER KENNETH F [US]
- US 2003065114 A1 20030403 - CASTNER KENNETH FLOYD [US]
- EP 1367069 A1 20031203 - DOW GLOBAL TECHNOLOGIES INC [US]
- JP 30179499 A 19991025
- US 3951936 A 19760420 - HANLON THOMAS L
- EP 0964008 A1 19991215 - BRIDGESTONE CORP [JP]
- EP 0924214 A2 19990623 - BRIDGESTONE CORP [JP]
- US 6184168 B1 20010206 - LYNCH THOMAS J [US]
- US 6018007 A 20000125 - LYNCH THOMAS J [US]
- US 4931376 A 19900605 - IKEMATSU TAKESHI [JP], et al
- US 5134199 A 19920728 - HATTORI YASUO [JP], et al
- US 4689368 A 19870825 - JENKINS DEREK K [GB]
- WO 2011082277 A1 20110707 - BRIDGESTONE CORP [JP], et al
- TANAKA ET AL., POLYMER, vol. 22, 1981, pages 1721 - 1723
- FRITZ ROTHMEYER; FRANZ SOMMER: "Kautschuk Technologie", 2006, CARL HANSER VERLAG
- "Rubber Handbook", 2000, THE SWEDISH INSTITUTION OF RUBBER TECHNOLOGY
- KIRK-OTHMER: "Encyclopedia of Chemical technology, 3rd ed.", vol. 20, 1982, WILEY INTERSCIENCE, pages: 365 - 468

## Citation (search report)

- [I] WO 2011082277 A1 20110707 - BRIDGESTONE CORP [JP], et al
- [X] TERUNUMA, DAIYO; MURAKAMI, KATSUTOSHI; KOKUBO, MASANORI; SENDA, KAZUHISA; NOHIRA, HIROYUKI: "Optical resolutions and configurations of benzylmethylphenylsilylmethylamine and its derivatives", BULLETIN OF THE CHEMICAL SOCIETY OF JAPAN, vol. 53, 1 January 1980 (1980-01-01), pages 789 - 794, XP002771012, ISSN: 0009-2673
- [X] YOSHIDA, HIROTO; MINABE, TAKASHI; OHSHITA, JOJI; KUNAI, ATSUTAKA: "Aminosilylation of arynes with aminosilanes: synthesis of 2-silylaniline derivatives", CHEMICAL COMMUNICATIONS, vol. 27, 9 June 2005 (2005-06-09), pages 3454 - 3456, XP002771013, ISSN: 1359-7345

## Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

## Designated extension state (EPC)

BA ME

## DOCDB simple family (publication)

**EP 3363804 A1 20180822**; TW 201835094 A 20181001; WO 2018150043 A1 20180823

DOCDB simple family (application)

**EP 17156857 A 20170220**; EP 2018054108 W 20180220; TW 107105049 A 20180212